THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte KLAUS D. BEYER,
TAQI N. BUTI, CHANG-MING HSIEH
and
LOUIS LU-CHEN HSU

_____

Appeal No. 96-3889
Application 08/336,956[1]

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ON BRIEF

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Before BARRETT, FLEMING and GROSS, ***Administrative Patent Judges***.

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[1] Application for patent filed November 10, 1994. According to appellants, the application is a division of Application 08/268,380, filed June 29, 1994, now U.S. Patent No. 5,405,795, issued April 11, 1995.

FLEMING, ***Administrative Patent Judge***.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 11 through 14. In a telephone interview on August 11, 1997, claims 12 through 14 were canceled by Appellants. Therefore, only claim 11 is before us for our consideration.

The invention relates to thin SOI integrated circuits.

Independent claim 11 is reproduced as follows:

11. An SOI field effect transistor having a self-aligned body contact and comprising a source and drain doped with a first polarity and formed in a silicon layer doped with a second polarity and disposed above an insulating substrate, and a gate insulator and gate, having a gate top surface, disposed above a body portion of said silicon layer between said source and drain and extending a gate length along a first axis passing between said source and drain, further comprising:

a gate extension connected to said gate and also disposed above said gate insulator and above a collection portion of said silicon layer, said body portion and said collection portion being in proximity, whereby minority carri-

ers may flow from said body portion to said collection portion;

raised source and drain contact members capped with a cap dielectric having a cap top surface above said gate top surface;

a collection electrode doped with said second polarity and disposed in contact with said silicon layer on a collection side of said gate extension opposite said gate, whereby minority carriers may flow from said body through said collection portion of said silicon layer to said collection electrode, said gate extension having gate sidewall support members connected to said gate and disposed between said collection electrode and said source and drain, said collection electrode being isolated from said gate and from said raised source and drain contact members by at least one insulating sidewall.

The reference relied on by the Examiner is as follows:

Yamaguchi et al. (Yamaguchi) 5,355,012 Oct. 11, 1994 (filed Apr. 28, 1993)

Claim 11 stands rejected under 35 U.S.C. § 102 as being anticipated by Yamaguchi.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the brief and the answer for the details thereof.

OPINION

After a careful review of the evidence before us, we do not agree with the Examiner that claim 11 is anticipated by the applied reference.

It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim. ***See In re King***, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and ***Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co***., 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

On page 7 of the brief, Appellants argue that Yamaguchi does not teach raised source and drain contact members as recited in claim 11. Appellants point out that the Examiner points to elements 5 and 6 shown in Figure 10 of Yamaguchi as being both the source and drain and the raised source and drain contact members. Appellants argue that the Examiner has double counted. Appellants further argue that Yamaguchi fails to teach a cap dielectric as recited in claim 11. Appellants argue that the Examiner's reliance on dielectric 9 shown in Figure 10 is in error because dielectric

9 is not a cap top dielectric above a raised source and drain contact member but instead a cap top dielectric for the gate 8.

As pointed out by our reviewing court, we must first determine the scope of the claim. "[T]he name of the game is the claim." ***In re Hiniker Co.***, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998).

We note that Appellants' claim 11 recites:

> An SOI field effect transistor . . . comprising ***a source (116) and drain (114***) . . . further comprising: ***. . . raised source and drain contact members (106, 108***) capped with a cap dielectric (70) having a cap top surface above said gate top surface. [Emphasis added.]

We note that the reference element numerals refer to Appellants' Figure 6 which shows that the source (116) is a distinct and separate element from the raised source contact member (106).

Similarly, Appellants' Figure 6 shows that the drain (114) is a distinct and separate element from the raised drain contact member (108). Furthermore, when we review the above claim

language, we find that the claim requires that source (116) is a distinct and separate element from the raised source contact member (106) and the drain (114) is a distinct and separate element from the raised drain contact member (108). Therefore, we find that the Examiner erred in finding that Yamaguchi's drain (6) shown in Figure 10 reads on both Appellants' claimed drain (114) and raised drain contact member (108) and that Yamaguchi's source (5) reads on both Appellants' claimed source (116) and raised source contact member (106).

Furthermore, upon a careful review of Yamaguchi, we fail to find that Yamaguchi teaches raised source and drain contact members (106, 108) capped with a cap dielectric (70) having a cap top surface above said gate top surface as recited in Appellants' claim 11. As shown in Appellants' Figure 6, reference element (70) is shown as a dielectric capped over the raised source and drain contact members (106, 108). Turning to Yamaguchi, Yamaguchi cannot provide this limitation because Yamaguchi does not teach raised source and

drain contact members. Furthermore, the Examiner erred in reading Appellants' claim

language on Yamaguchi element 9 because element 9 is shown in Figure 10 and disclosed in column 5 as being an interlayer insulation film for gates 8 and 18. Therefore, we find that Yamaguchi fails to teach all of the limitations of claim 11, and thereby the claim is not anticipated by Yamaguchi.

In view of the foregoing, the decision of the Examiner rejecting claim 11 is reversed.

REVERSED

LEE E. BARRETT Administrative Patent Judge	)	
MICHAEL R. FLEMING Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
ANITA PELLMAN GROSS	)	

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